

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

Claims 1-13. (Cancelled)

Claim 14. (Currently Amended) A power semiconductor device with trench gates comprising:

- a) _____ a semiconductor substrate;
- b) _____ a source layer on one surface of [[the]] said substrate and comprising a high concentration of a dopant of [[one]] a first polarity;
~~a region lightly doped with said one polarity;~~
- c) _____ a single drain region on the other surface of [[the]] said substrate;
- d) _____ a well layer beneath [[the]] said source layer doped with a dopant of a second polarity opposite to said first polarity;
- e) _____ a region lightly doped with said one polarity positioned above said drain region and below said well layer;
- f) _____ a plurality of trenches penetrating [[the]] said source layer and terminating in said region lightly doped with said one polarity, said trenches substantially filled with conductive material;
- g) _____ a highly conductive layer on the surface of [[the]] said source layer comprising a material reacted from a metal and ~~the semiconductor~~ said substrate which forms a highly conductive path extending from a first of said plurality of trenches to a second of said plurality of trenches;
- h) _____ an insulating layer on [[the]] said highly conductive layer and on [[the]] said conductive material in [[the]] said trenches;
- i) _____ vias formed in [[the]] said insulating layer and extending to [[the]] said highly conductive layer ~~on the source layer;~~ and

j) _____conductive material filling ~~[[the]]~~ said vias for contacting ~~[[the]]~~ said highly conductive layer.

Claims 15-19. (Cancelled).

Claim 20. (Currently Amended) The power semiconductor device of claim 14 wherein ~~[[the]]~~ said trenches are filled with polysilicon and the top surface of ~~[[the]]~~ said polysilicon is covered with a highly conductive material reacted from a metal and ~~the semiconductor substrate~~ said polysilicon.

Claim 21. (Currently Amended) The power semiconductor device of claim 14 wherein ~~[[the]]~~ said highly conductive layer is a silicide.

Claim 22. (Cancelled).

Claim 23. (Currently Amended) The power semiconductor device of ~~claim 20 or~~ claim 21 wherein ~~[[the]]~~ said silicide is reacted from platinum or titanium.

Claim 24. (Currently Amended) The power semiconductor device of claim 14 wherein ~~[[the]]~~ said insulating material on ~~[[the]]~~ said highly conductive layer is BPSG, PSG, silicon dioxide or silicon nitride.

Claim 25. (Currently Amended) The power semiconductor device of claim 14 wherein ~~[[the]]~~ said trenches are lined with a trench wall insulating material and ~~[[the]]~~ said insulating material on ~~[[the]]~~ said highly conductive layer contacts the ends of ~~[[the]]~~ said trench wall insulating ~~[[layer]]~~ layers lining ~~[[the]]~~ said walls of ~~[[the]]~~ said trenches.

Claim 26. (Currently Amended) The power semiconductor device of claim 14 wherein one or more vias terminated on ~~[[the]]~~ said surface of ~~[[the]]~~ said highly conductive layer ~~for making~~ make electrical contact between ~~[[the]]~~ said highly conductive source layer ~~and the~~ and conductive material filling ~~the via(s)~~ said vias.